



Center for the Study of
Government and the
Individual

We're All Teachers Now

Perspectives and Future Plans of Parents Teaching at Home during COVID

Dick M. Carpenter II

Joshua M. Dunn

University of Colorado Colorado Springs

September 2020

We're All Teachers Now

Perspectives and Future Plans of Parents Teaching at Home during COVID



Executive Summary

COVID-19 school closures were the largest disruption of schooling in modern history. This study examines what schooling at home looked like for families, what educational resources schools offered, parents' assessment of the experience, and their plans for the 2020-2021 school years. Most schools provided educational resources ranging from hardcopy packets and worksheets to live instruction provided online. Many also provided computers and internet access to families. Students and parents—mostly mothers—spent an average of 3.5 and 2.5 hours a day, respectively, working through assignments and materials provided by schools. Parents were generally positive about the experience, but many were concerned their children had fallen behind academically. Only a small percentage said they were going to homeschool, but more than a third planned to send their child to a virtual school. Of those who were going to homeschool or choose a virtual school, concern about their child's health was the dominant motivation. Differences on many questions were evident based on family income and type of school attended in 2019-2020.

INTRODUCTION

In March 2020, approximately 30 million students in the United States were displaced from their schools due to COVID-19 (Cavanagh, 2020). It was arguably one of the greatest interruptions of organized schooling in modern history. Regions in the United States had seen significant educational disruptions before, such as during and after hurricanes (McDonald, 2020), but nothing equaled the massive scope of COVID-19 closures.

In the midst of all of it, the predictions of educational pundits became an echo chamber: “Teaching will never be the same” (Bolton, 2020), “Why schools will never be the same” (Keierleber, 2020), or “Homeschooling during the coronavirus pandemic could change education forever” (Broom, 2020). Whether the pandemic proves to be a watershed moment for educational change depends in no small part on the experiences and attitudes of parents, many of whom, for the latter part of the 2020 school year, had the primary responsibility of teaching their children at home—or at least significantly overseeing what their children were learning. This presented parents with an unprecedented opportunity to observe and evaluate (a) what their children were learning, (b) the ability and willingness of schools to provide educational resources to families, and (c) other educational options.

The experience of some parents may have confirmed their reliance on the neighborhood school, while for others it may have compelled them to consider other options. Given we are writing this in August 2020, this is one of the first studies of its kind to systematically examine the educational experiences of families under COVID and what that may mean for schooling decisions in the 2020-2021 school year.

To do so, we surveyed 1,743 parents in traditional public, charter, and private schools across the United States in August 2020. We asked about what schooling at home looked like for their families, what educational resources schools offered, parents’ assessment of the experience, and their plans for the 2020-2021 school year.

In the results that follow, we found the vast majority of schools provided educational resources ranging from hardcopy packets and worksheets to live instruction provided online. Schools sometimes provided laptops to use at home and even internet service for those who needed it. For their part, students and parents—mostly mothers—spent an average of 3.5 and 2.5 hours a day, respectively, working through assignments and materials provided by schools. Teachers maintained frequent contact with families through various communications technologies, which included email, texting, video meetings, web portals, and phone calls. Despite the grim real-time descriptions of schooling at home that dominated the media in spring 2020, parents we surveyed were generally positive about the experience.

Nonetheless, many parents were concerned their children had fallen behind academically because of at-home learning. The experiences and evaluations were also not uniform across families based on household income or school type. As spring 2020 wore on, educational pundits

began to express concern about inequities in at-home schooling, and our results confirm that was the case, although not as severely as surmised at the time. Moreover, parents with children in private and charter schools report a more positive experience than those in traditional public schools.

Although as of this writing schools and parents were still deciding about enrollment for the 2020-2021 school year, only a small percentage of respondents to our survey said they were going to homeschool, but more than a third planned to send their child to a virtual school. Of those who were going to homeschool or choose a virtual school, concern about their child's health was naturally the dominant motivation. Most respondents said they were going to send their children to their traditional public/charter/private school in whatever form the school opened—in person, hybrid, or completely online.

BACKGROUND

For those who read media accounts in spring 2020, that latter finding may not be surprising. Real-time descriptions frequently conveyed a haphazard response to COVID by schools and overwhelmed parents scrambling to teach their children and maintain their employment (assuming they were not laid off)—certainly not the experience that would motivate parents to ask for more at-home schooling.

How Schools Responded

When schools began closing in mid-March, teachers and administrators rushed to create educational content through hundreds of thousands of paper packets and online lessons (Blume, Kohli, Xia, & Esquivel, 2020; Crain, 2020; Keane, 2020). One common, although not exclusive approach of structuring lessons was sending students weekly assignments by subject at the beginning of each week. Students would then work independently or with a parent, seeking help from teachers during office hours if they had questions (Koh, 2020). Teachers became “advisers” and maintained contact through video chats or over the telephone (Keane, 2020; Koh, 2020). The implementation of such initiatives was uneven, as illustrated by two adjacent districts in Milwaukee (Richards, 2020). Nicolet High School, a single-school district with about 1,000 students, created an online learning system in a matter of days and worked to secure necessary hot spots for students and staff. Next door at the Whitefish Bay School District, which enrolls around 3,000 students, the district took a month to create a virtual learning plan. The delay drew numerous complaints by Whitefish Bay parents.

Part of the uneven implementation was inconsistent possession of or access to technology (Crutchfield & Londberg, 2020). Moving to online instruction often required schools to ensure families had devices—laptops or tablets—and even internet access. Duval County Public Schools in Florida, for example, distributed 3,500 hotspots and 37,000 laptops (Bloch, 2020). The Jacksonville, Florida, school district estimated more 27,000 students needed laptops (Bloch, 2020), and the Miami school district provided to students 90,000 devices and 11,000 hotspots

(Richards, 2020). Los Angeles Unified, purchased 200,000 computers for students to use at home and contracted with Verizon to connect households to the internet for free. A California state partnership with Google provided free Wi-Fi to 100,000 households (Blume et al., 2020).

Nevertheless, gaining technology and internet access reportedly proved difficult. Some estimated, for example, 200,000 households in California lacked devices to participate in virtual instruction (Koh, 2020). States provided funds for internet hot spots, but extreme demand left store shelves empty of technology and families waiting weeks to get online. Even if technology was available, some families struggled to gain permission from their landlords to install the necessary equipment (Blume et al., 2020). Students unable to access internet at home sat outside businesses with free wifi to do homework (Bloch, 2020). And some districts reportedly failed to deliver needed devices out of fear the mere distribution would facilitate spread of the virus (Crutchfield & Londberg, 2020).



The uneven implementation of at-home learning extended beyond technology. One survey of parents found only around a third of families received resources from their schools, such as lessons or curricular materials (Park & Winchester, 2020). Some schools required students to sign into learning platforms daily and graded students' work, while others checked in with students only periodically and gave all students As on their assignments (Richards, 2020). Still others elected not to provide any online classes but provided families with resources at the district website (Needles, 2020).

For schools that provided some form of organized instruction, the offerings took many forms: live video lessons, recorded lectures, one-on-one support over the phone, or feedback delivered through an online platform (Gross & Opalka, 2020; Richards, 2020). In a study of school district responses to COVID-19, Malkus, Christensen, and Schurz (2020) found one in five schools were in districts that offered rigorous remote instruction. Perfunctory remote instruction was more common, with 40% of schools falling into this category. The remaining schools offered moderate packages of remote instruction.

Some districts offered real-time, online classes that mimicked the classroom experience, but more often than not, students saw their teachers for a few minutes a day or a week, and some not at all (Cavanagh, 2020; Davis, 2020). Many districts explicitly encouraged or expected teachers to make direct contact with their students. The most common method was email communication between teachers and students. Other common forms of direct contact included web-based platforms, scheduled office hours, phone calls, and homework hotlines (Malkus et al., 2020). One survey of parents found less than half (47%) reported receiving "a lot" of information from their child's school about resources and support available to them. More than 80% said they received information from their child's school at least once a week, and more than half (54%) received information three times a week or more.

Much of the preceding came from contemporaneous reporting during the COVID school closures, but two research teams tracked school responses from March to May, with summary results available at the end of the school year. The first (Gross & Opalka, 2020) found the large majority of public districts tracked—85%—made sure their students received some form of grade- and subject-specific curriculum in packets, assignments posted online, or guidance to complete segments of online learning software. Yet, just one in three districts expected teachers to provide instruction, track student engagement, or monitor academic progress for all students, leaving learning largely to chance or the diligence of parents.

The second (Malkus et al., 2020) found across most measures in the study, public schools ended the school year by providing core educational services. Ninety-five percent provided meals to students, 66% provided devices, and 70% provided internet access to students at home. Almost all schools (97%) provided some form of remote instruction, most commonly asynchronous web-based platforms, followed by hardcopy instructional packets and then synchronous web-based classes. Many schools (67%) announced assignments were being graded, although the plurality graded only on completion. Finally, although almost two-thirds of schools expected student participation, less than a third established any mechanism for taking “attendance.”

What Learning Looked Like at Home

Had school districts kept close tabs on student engagement, they would have found children spent an average of 4.2 hours per weekday on school work, with 22% of parents reporting their child spending less than one hour per weekday on school work (Park & Winchester, 2020). For their part, parents—mostly mothers—spent approximately 2.5 hours per weekday helping their children with school (Park & Winchester, 2020; Watson, 2020). For parents who were home regularly, some structured the time, with daily schedules that included not only school work, but also chores, exercise, meals, and free time (Carter, 2020; Needles, 2020; Watson, 2020). Nonetheless, many media reports told of parents being overwhelmed. This was particularly so in families with multiple children spread widely across grades. One Pennsylvania mother of three children described the challenge of keeping track of four different school email accounts and 12 Google livestreams, all while transitioning her job to home (Flaccus & Gecker, 2020).

Many parents, however, were not home during the day, which meant in families with siblings, older children cared for younger ones, making schoolwork difficult (AP, 2020a). In such circumstances, schoolwork was pushed to weekends or late in the evenings (AP, 2020a). In other cases, parents tapped informal networks of friends and family to create study groups composed of classmates doing remote learning together (Ovide, 2020). For students without adults at home and no peer support group, remote learning reportedly grew increasingly difficult (Blume et al., 2020; Crutchfield & Londberg, 2020).

Early on, some school districts appeared to exacerbate the situation by attempting to continue the curricula on the same pace as in school (Davis, 2020). Some students reported the workload was even greater than had they been in school (Bloch, 2020). Although 90% of families said they

used school-provided resources (Park & Winchester, 2020), reports occasionally surfaced of schools assigning science experiments and art projects that required parents to go to stores in search of materials not commonly kept in homes (Davis, 2020).

Not surprisingly, some frustrated and exhausted parents chose to disconnect entirely for the remainder of the school year (Flaccus & Gecker, 2020), including teachers and college professors (Cavanagh & Fox, 2020; Weiner, 2020). Instead of schooling at home, their children watched TV, played video and board games, cooked and baked, cleaned and sewed, read, and pursued their own interests (AP, 2020a; Carter, 2020; Cavanagh & Fox, 2020; Koh, 2020; Weiner, 2020). One enterprising father even taught his son how to short stocks (Das, 2020).



These are, of course, general, anecdotal descriptions and not shared universally. Quickly after schools closed, media stories began focusing on differences in remote learning based on family income, community characteristics, family structure, and school type. Income differences were seen most acutely in access to technology and internet (Courtney, 2020), but children in lower income groups were also often handicapped by environments not conducive to learning, a lack of steady meals, and less adult guidance at home (Kamenetz, 2020b; Richards, 2020). As early as March, parents in lower-income households were expressing concern about their children's academic progress at greater rates than those in higher income households (AP, 2020a).

Similarly, differences in community characteristics were manifest in the type of instruction students received. More affluent school districts more often provided live video instruction from teachers. Only 14.5% of school districts with the highest concentration of students receiving free or reduced lunch provided live instruction, whereas more affluent districts were twice as likely to provide real-time teaching (Gross & Opalka, 2020). Community differences were also evident based on urbanicity. Only 27% of rural and small-town school districts provided online instruction, compared with more than half of urban school districts. Similar gaps were evident in the percentages of school districts in which teachers checked in with students or graded schoolwork, with rural schools lagging urban ones (Gross & Opalka, 2020).

Within homes, families with older children may have fared somewhat better than those with predominantly younger ones. Teenagers were more equipped to work independently and to navigate the new technology required for schoolwork (Flaccus & Gecker, 2020). But this was moderated by English learner status and special needs, with such students reportedly suffering from access to personnel and resources necessary to succeed (Boggs, 2020; Crutchfield & Londberg, 2020).

Perhaps the most significant differences appeared to be based on the type of school families attended. Many private schools, freed from bureaucratic red tape and populated with digitally savvy families, pivoted more easily to remote learning (Richards, 2020). In Tacoma, Washington, for example, public schools chose not to provide active remote learning, instead posting and distributing resources that included activity packets and links to additional learning tools (Needles, 2020). Meanwhile, Charles Wright Academy, a private school in Tacoma, shifted to a remote learning platform that included both asynchronous work and synchronous classes.

One study (Common Sense Media/SurveyMonkey, 2020) compared the remote learning activities of teens in public versus private schools and found stark differences illustrated in Table 1. Private school students more often were in contact with teachers, attended online classes, and used various technologies to connect with the school. In a different study, when asked about class attendance, 47% of public school students said they had not attended a class, compared with just 18% of private school students (Kamenetz, 2020a).

Table 1: Differences in Learning Activities between Public and Private School Students

	Public	Private
Connecting with their teacher		
...once a day or more	31%	66%
...a few times a day	15%	33%
...once an hour or more	2%	14%
...less than once a week	28%	4%
Having a dedicated space where they can do schoolwork at home	71%	67%
Attended an online or virtual class	53%	82%
Using email to stay connected to school	68%	78%
Using a learning management system to stay connected to school	50%	65%
Using video chat or videoconferencing to stay connected to school	39%	88%
Using texts to stay connected to school	33%	33%
Using social media to stay connected to school	26%	23%
Using messenger apps to stay connected to school	21%	24%
Using phone calls to stay connected to school	19%	15%

Assessing the Experience

In the final assessment, remote learning in spring 2020 seemed to receive decidedly mixed reviews (Hamilton, 2020). Although large percentages of parents professed to feeling prepared and able to help their children with remote learning (EdChoice, 2020; Education Trust-West, 2020), 52% agreed the experience was harder than they expected it to be (Park & Winchester, 2020). Moreover, a large majority expressed concern about providing productive learning at home (Baldassare, Bonner, Dykman, & Lawler, 2020). Anecdotes in media frequently reported on parents feeling overwhelmed and inadequate (Bloch, 2020), including university professors (AP, 2020a), college presidents (Strauss, 2020), and Hollywood celebrities (Newcomb, 2020).

According to some, schools performed poorly (Henderson, 2020), with remote learning declared an “utter failure” (DeMarche, 2020). By mid-May, many school districts ended early, “giving up” on “cumbersome” remote learning (Strassel, 2020). As the months wore on, student participation declined (Bloch, 2020) as students struggled with technology and found home environments not optimal for learning (Blume et al., 2020; Davis, 2020; Koh, 2020). One survey taken in May reported more than two-thirds of parents were concerned about their children falling behind, and almost the same percentage feared it would affect their educational success for longer than a year (Koh, 2020). “A lot of parents were disillusioned with what they saw over the last 120 days,” said Luis Huerta, a professor of education and public policy at Teachers College at Columbia University. “They felt the level of instruction was not up to par and that schools dropped the ball during the transition” (Ali, 2020).

Conversely, other evidence suggested parents were satisfied with the performance of their schools. One survey found 57% of parents agreed their child’s remote schooling worked better than expected (Park & Winchester, 2020). Another reported more than 90% of parents approved of the way schools handled closures (Baldassare et al., 2020), and still another found more than 80% of parents believed their schools were doing a good or excellent job (Education Trust-West, 2020). Notably, results in the latter study showed a significant difference in parental opinion based on income, with lower income parents much less favorable about the success of remote learning. In a *USA Today*/Ipsos poll (2020), more than 70% of parents approved of their schools’ efforts, and more than 60% believed their schools prepared their children well for remote learning.

According to some, schools performed poorly, with remote learning declared an “utter failure.”

Of course, the type of assessment that may be most revealing is what parents elected to do for fall 2020. Some authors predicted the schooling at home experience would compel parents to choose different options for their children. McDonald (2020) asserted, “we may be on the brink of a massive educational reset.” Henderson (2020) opined, “Get ready. A school renaissance is coming.” By that Henderson meant increased school choice, specifically more homeschooling and lower enrollment in public schools.

Yet, signals from parents did not clearly point to a “renaissance.” Some polls showed most parents were going to send their children back to their neighborhood schools, although those in lower income households said they were less likely to do so (Chua, DeJonckheere, Reeves, Tribble, & Prosser, 2020). Only small percentages planned to hold their children out, mostly due to concern for the health of someone in their homes (Chua et al., 2020; Gallegos, 2020). Other sources suggested the number of students not returning to neighborhood schools was going to be greater. School officials in Alabama, for example, expressed belief that 15% to 20% of parents would not send their children to traditional schools (Crain, 2020). After surveys from parents showed greater preferences for virtual learning, some school officials throughout the country began preparing fully online schooling options (Belsha, 2020). At the end of May, Crain (2020)

reported seven states were already planning to offer full-time virtual school, and school districts with pre-existing virtual schools were seeing a surge of enrollment.

Interest in homeschooling also appeared to spike. Homeschooling organizations around the country reported unprecedented numbers of contacts from parents seeking advice and resources for fall 2020 (Ali, 2020; Bethencourt, 2020; Goree, 2020; Kamenetz, 2020b). Estimates of the number of families that would homeschool during the 2020-2021 school year ranged anywhere from 40% to 60% (Lardieri, 2020; Schultz, 2020; USA Today/Ipsos, 2020), and some predicted 1% to 2% of those would continue homeschooling even after the pandemic (Ali, 2020).

Throughout summer 2020, the idea of homeschool pods emerged as a potentially viable option. Based on the idea of micro-schools or homeschool coops, pods would operate with a small group of children consistently schooling together in a home (Picchi, 2020). Some variations would have parents leading instruction (Lisickis, 2020), while others would be led by teachers or tutors hired by participating families (Courtney, 2020; Kamenetz, 2020b; Picchi, 2020). Although critics pointed to inequities created by such pods (Bastian, 2020)—more affluent families can afford such schooling while others cannot—parents concerned about their children’s education and health and their own employment longevity did not appear moved by such concerns (Picchi, 2020).

Of course, many of these projections were published in early summer 2020. Results from our research are based on a survey of parents administered in August 2020, making them a bit more accurate. Moreover, aside from a few exceptions (Gross & Opalka, 2020; Malkus et al., 2020; Park & Winchester, 2020), much of the narrative above was based on contemporaneous media reporting throughout spring 2020, not systematic research. This means the findings we report below are among the first to examine in a systematic way the experiences and assessments of families during COVID remote learning. We expect copious amounts of research on the educational implications of COVID-19 will be forthcoming. Studies like ours will help provide the context necessary to understand and interpret that future research.

METHODS

Our study was guided by five primary questions:

1. What access did parents and students have to resources provided by the school?
2. What forms did remote learning take?
3. What was the engagement of parents and students with remote learning?
4. What were parent perceptions of the effectiveness of their at-home schooling experience?
5. What were parents planning to do for schooling options in 2020-2021?

Data

Answers to these questions were based on survey data we collected from a sample of 1743 parents (representing 3,414 children) across the United States. The survey, which we created, was administered online by a professional polling firm (Technometrica) during the first two weeks of August 2020. The survey included 44 mostly closed-ended questions about the resources families had during at-home schooling, how children spent their day, how much time was spent on schoolwork, communication with school, assessment of the experience, plans for the 2021 school year, and basic demographics.

To ensure the sample was representative by school type, we stratified based on traditional public school (84%), private school (10%), and charter school (6%) using a quota system built into the survey. Throughout, respondents were prompted to answer substantive questions while focusing on their youngest child in a given school type. That child was used to fill school type quotas. For example, if a parent reported having three children in charter schools, the parent was asked to focus on the youngest of those while answering the survey questions. So the unit of analysis was a parent/guardian answering on behalf of or thinking of a specific child. We also ensured representativeness by applying sample weights so that the sample reflected the population based on respondent race/ethnicity and region of the country.

Table 2 presents the sex, race/ethnicity, education levels, and household incomes of respondents. The majority were white females. More than 50% held at least a college degree. Slightly more than 60% reported household incomes of greater than \$50,000. Additionally, the mean age of respondents was 39 (sd = 9), and the mean number of children per survey respondent was two (sd = 1.2). Almost 76% of respondents were married.



Table 2: Sex, Race/Ethnicity, Education Levels, and Household Income of Respondents

	Percentage
Sex	
Male	29
Female	71
Race/Ethnicity	
White	75
Black	7
Asian	5
Native American	1
Other	1
Hispanic	11
Education Level	
Some high school	3
High school graduate	19
Some college	23
College graduate	26
Some graduate courses	3
Graduate/Professional degree	27
Household Income	
Under \$20,000	11
Between \$20,000 and \$30,000	11
Between \$30,000 and \$40,000	9
Between \$40,000 and \$50,000	7
Between \$50,000 and \$75,000	18
Between \$75,000 and \$100,000	14
Between \$100,000 and \$200,000	22
Between \$200,000 and \$250,000	5
Over \$250,000	3
Not sure	1

Table 3 includes the employment status of respondents and their spouses. A little more than half of respondents were working full time when data were collected. The next largest percentage (18%) classified themselves as homemakers. A little more than 60% of their spouses were working full time. Equal percentages of respondents and spouses were working part-time (10%).

Table 3: Respondent and Spouse Employment Status

	Respondent	Spouse
Employed full-time	54	64
Employed part-time	10	10
Unemployed and currently looking for work	6	4
Unemployed and not currently looking for work	2	3
Student	1	0
Retired	2	3
Homemaker	18	9
Self-employed	4	3
Unable to work	3	2

Analysis

Data were analyzed primarily with descriptive statistics (e.g., means and frequencies). For some survey questions we also disaggregated results by household income or school type. As discussed above, these were two variables most often discussed in contemporaneous reporting as showing differences in remote learning. Therefore, we explored whether there were systematic differences consistent with the media reporting from spring 2020.

RESULTS

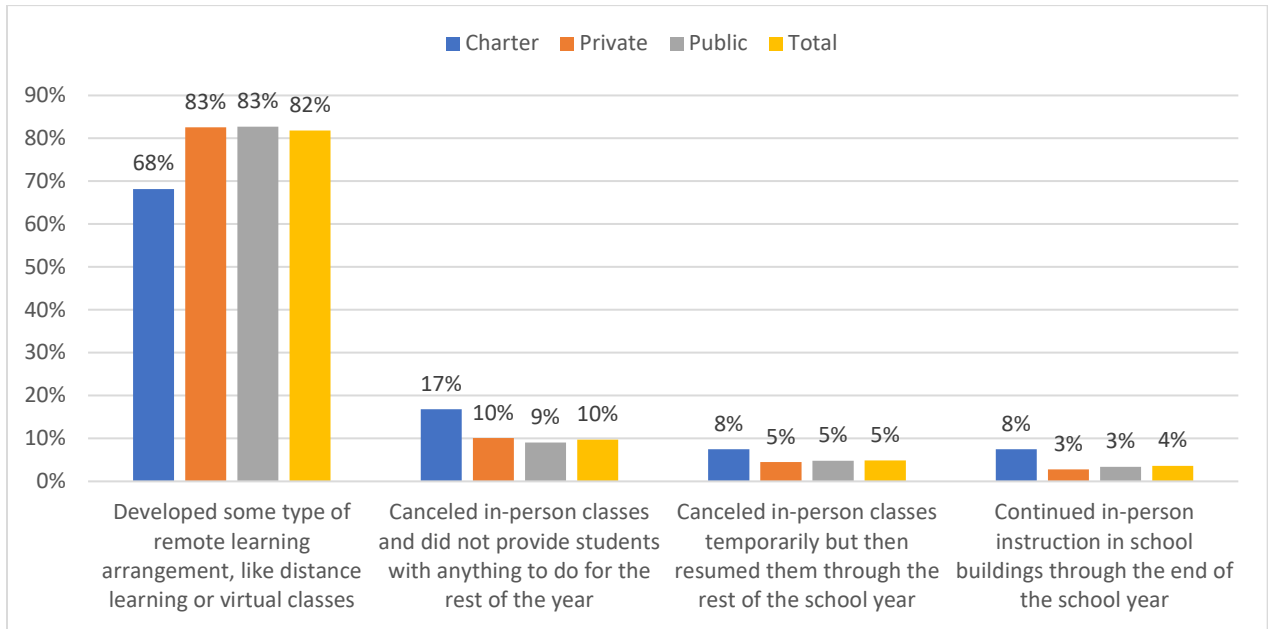
We begin the results by describing the experiences of families with at-home schooling. This is followed by an assessment by parents and finally results on what families planned for the 2020-2021 school year.

The Experiences of Parents and Students

After schools closed in March, 82% of all participants reported their schools eventually developed some type of remote learning (see Figure 1). Ten percent reported schools canceled classes and provided no remote learning, with the remainder resuming or continuing classes until the end of the school year. For those families in schools that cancelled classes and provided no resources, most students (49%) spent their time primarily watching TV and playing games. Only 28% engaged in a learning program created by parents. The remainder worked around the house, worked for pay, or pursued other interests.

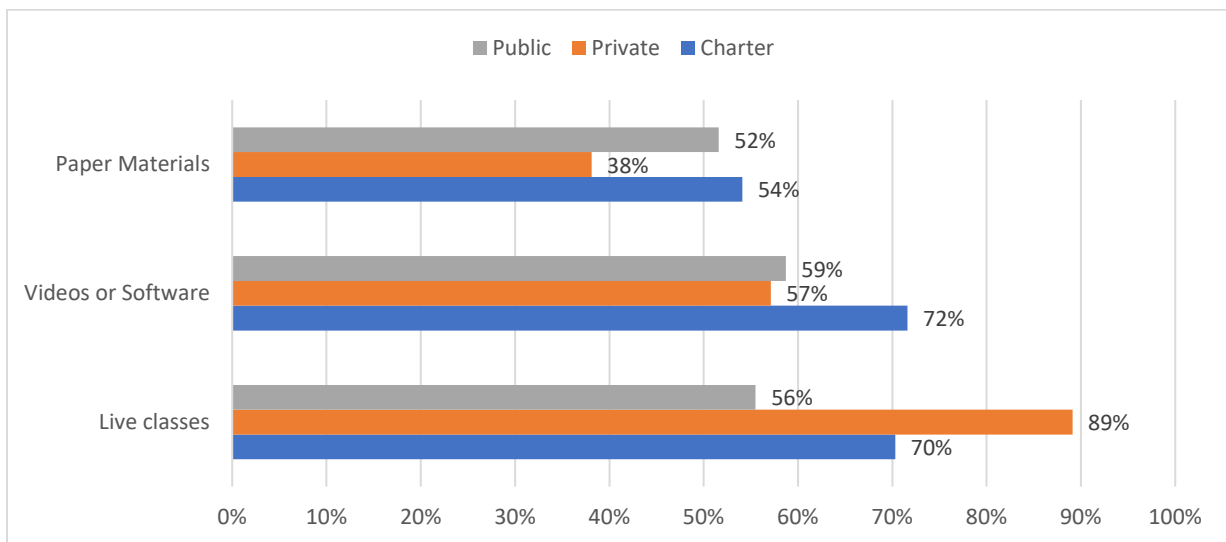
The responses of schools were not, however, consistent across school types. Charter schools were less likely to provide remote learning and more likely to cancel in-person classes and provide no at-home learning. Charters were also somewhat more likely to continue in-person classes.

Figure 1: How Schools Responded to COVID-19



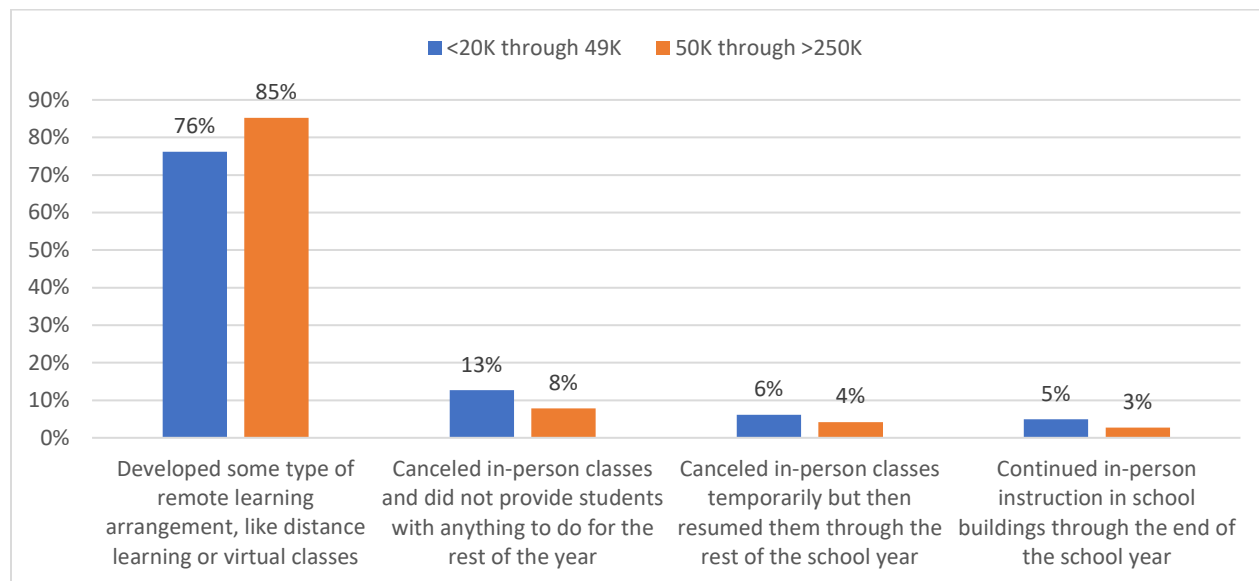
The remote learning provided by schools took the form of instructors teaching live through a video platform (59.8%) and/or providing students software or pre-recorded videos (59.2%). Half of parents also reported receiving paper packets, worksheets, or books. Among schools that provided remote learning, it varied by school type (see Figure 2). Private schools more often provided real-time, online learning and were least likely to provide hardcopy materials. Charters more than traditional public schools also provided real-time and video learning.

Figure 2: Types of Remote Learning by School Type



Differences were also apparent by household income (see Figure 3). Families with incomes below \$50,000 were less likely to be in schools that provided at-home learning and more likely to be in schools that cancelled classes with no resources provided. Lower income families were less likely to receive real-time or video materials (54% and 49% respectively) as compared to higher income families (64% and 65% respectively). Lower income families more often received hardcopy materials than did higher income families (58% compared to 46%).

Figure 3: Responses of Schools by Household Income



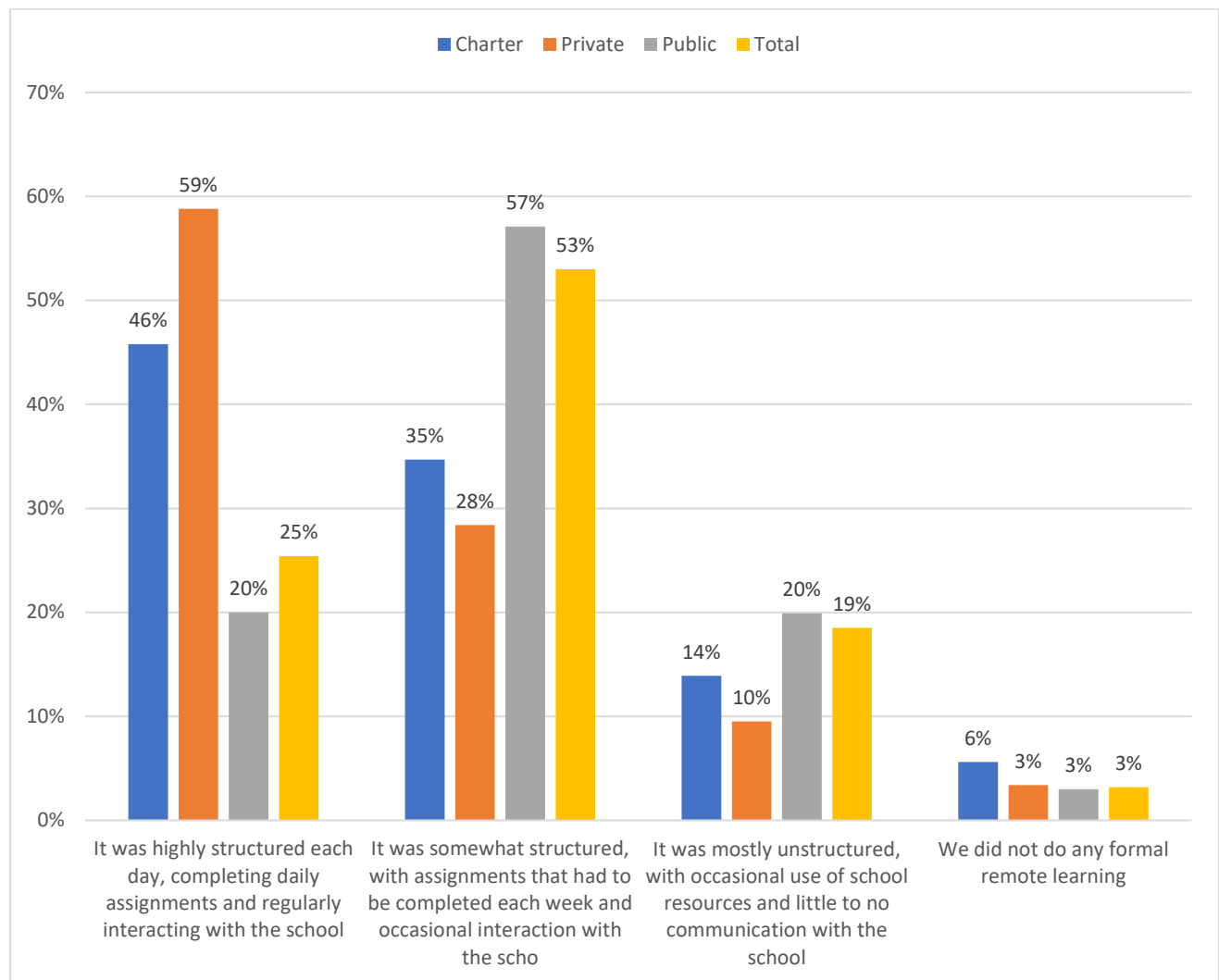
Given how much remote learning depended on technology, access to devices (laptops/tablets) was particularly important. As it turns out, such access was nearly ubiquitous, with 94% of families reporting access (public = 93%, private = 98%, charter = 100%). For almost a third of those families, however, the devices were provided by their schools, with public schools most often distributing devices (public = 34%, private = 16%, charter = 29%). Relatedly, 84% of families described their internet access as reliable or very reliable (public = 81%, private = 96%, charter = 96%). Most families (95%) paid for their own internet, but when schools provided internet, charter schools more frequently did so than the other school types (public = 3%, private = 5%, charter = 18%).

Differences in access to technology were also evident by household income. Lower income families less often had devices at home (88%) than higher income families (98%), and the school more often provided devices to the former as compared to the latter (43% versus 26%). While lower income parents less often described their internet access as reliable or very reliable (77% versus 87%), the household income difference in school provision of internet services was trivial.

Remote learning was most often semi-structured, with weekly assignments and occasional communication with the school (see Figure 4). A quarter of respondents said remote learning was highly structured with daily assignments, and somewhat less than that said it was mostly

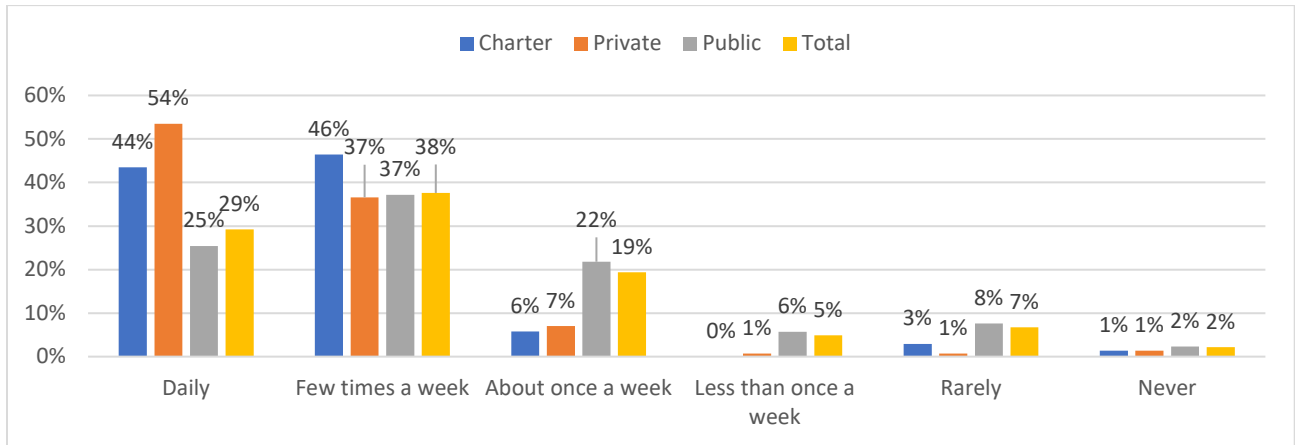
unstructured. The structure of remote learning differed by school type, with private and charter schools more often than public schools requiring daily assignments and frequent communication with teachers. Conversely, families in public schools more often worked in semi- or unstructured environments. When disaggregated by household income, differences in the structure of remote learning were small.

Figure 4: Parents’ Descriptions of the Structure of Remote Learning



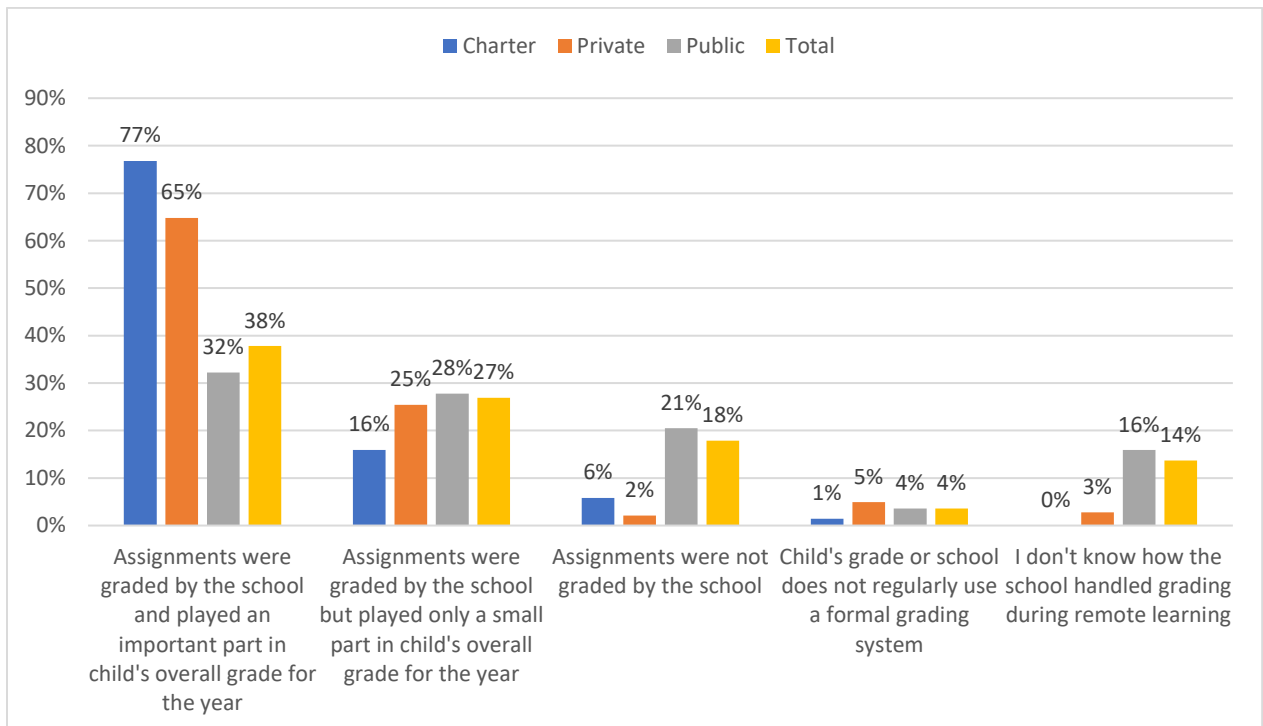
Communication between teachers and students most often occurred at least a few times per week, and for almost 30% of families, it happened daily (see Figure 5). Given the differences by school type in the format of remote learning, it is not surprising that differences in communication based on school type were large, with charter and private schools communicating more frequently with students than public schools. Notably, 14% of public school participants reported communication occurred less than once a week or rarely.

Figure 5: Frequency of Communications between Teachers and Students



During remote learning, schools also had varying expectations of students. Overall, a little more than one-third of parents reported assignments were graded by the school and played an important role in the final grade for the year (see Figure 6). That differed substantially, however, by school type. Seventy-seven percent and 65% of charter and private school parents respectively reported that expectation, compared to 32% of public school parents. Conversely, only small percentages of charter and private school parents said assignments were not graded by the school, but more than one fifth of public school parents said that was the case in their schools.

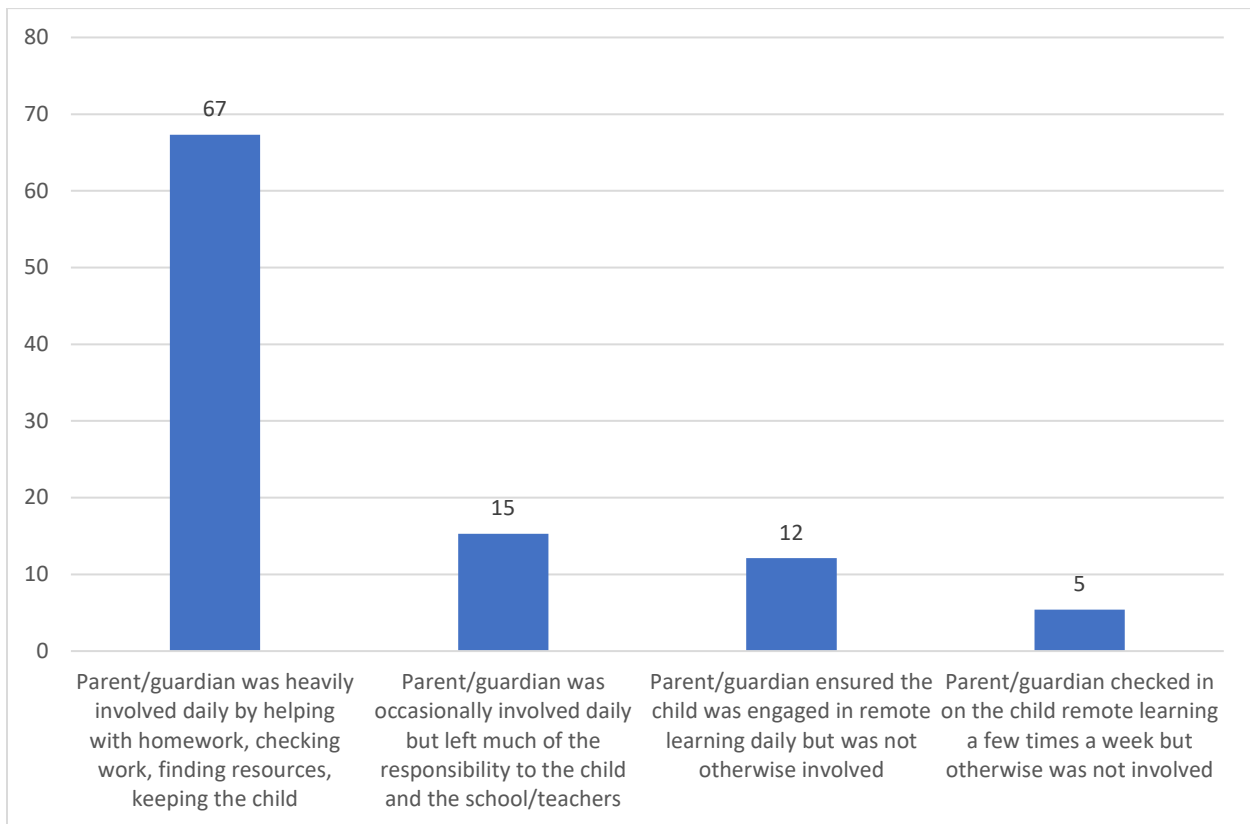
Figure 6: Expectations during Remote Learning



As for participation or “attendance” in remote learning, this, too, varied by school type. Overall, 79% of parents said their child’s participation was required. By school type, 93% of charter and 91% of private school parents reported required participation compared to 77% of public school parents. Although required, participation was not always closely monitored by schools. Sixty-one percent of parents said their school actively tracked participation, with charters (87%) and private schools (85%) actively tracking more than public schools (57%).

During remote learning, mothers most often assumed the responsibility for managing or helping their children (59%), but almost 30% of the time mothers and fathers managed the responsibility equally. Parents spent about 2.5 hours per day helping with schoolwork; children spent about an hour more each day in remote learning. Parents most often (67%) characterized their engagement as heavily involved daily (see Figure 7). For those who were less involved than that, 45% said work responsibilities consumed their attention, but 43% said their child did not want help.

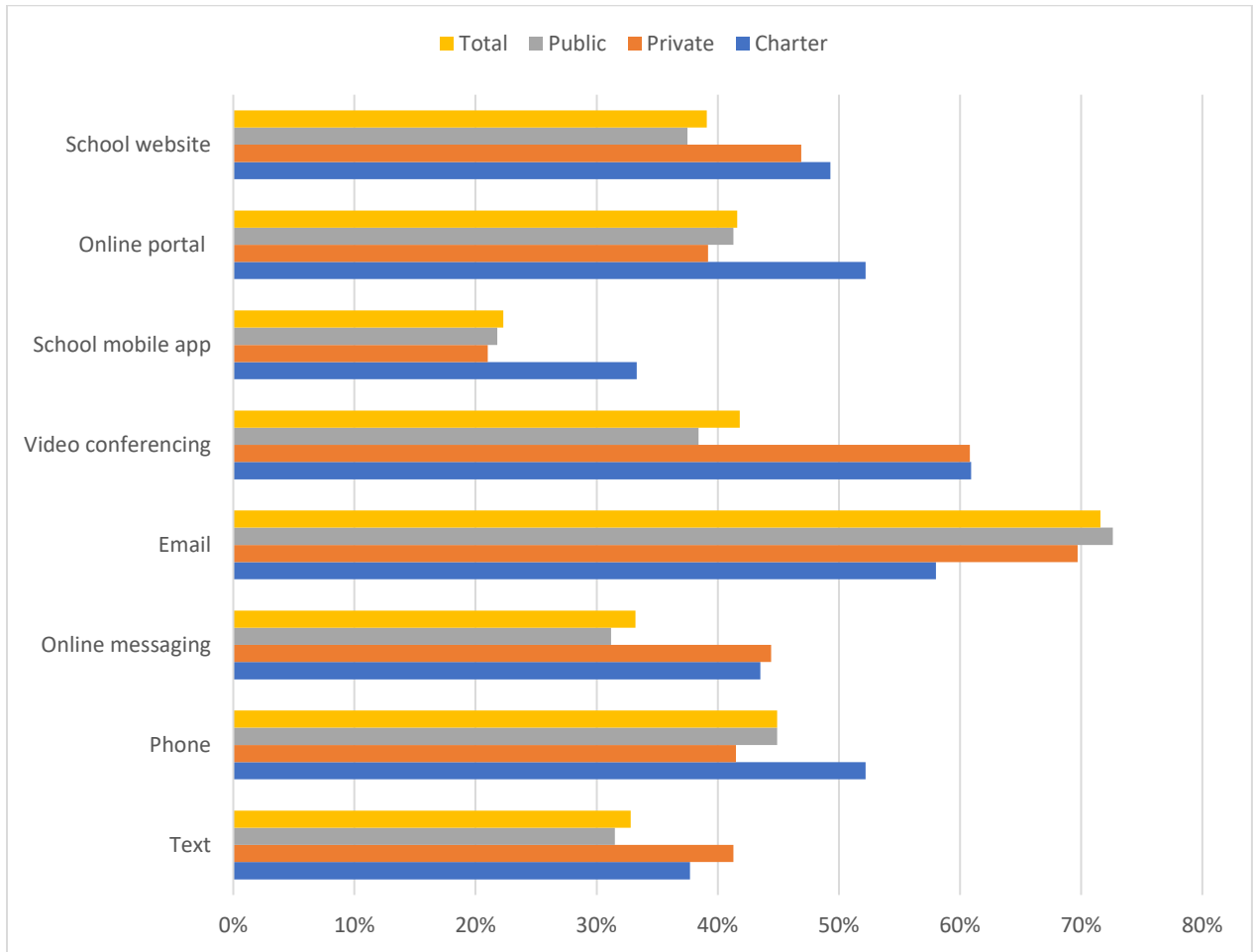
Figure 7: Level of Parental Involvement in Remote Learning



Part of parental involvement included communicating with schools. That communication most often occurred through email, particularly for public and private schools (see Figure 8). Charter and private school parents also frequently communicated with schools through video conferencing, but public school parents did so significantly less often. Charter schools also

appeared to use online methods such as school websites, mobile apps, and online portals more often than the other school types.

Figure 8: Types of Communication between Parents and Schools

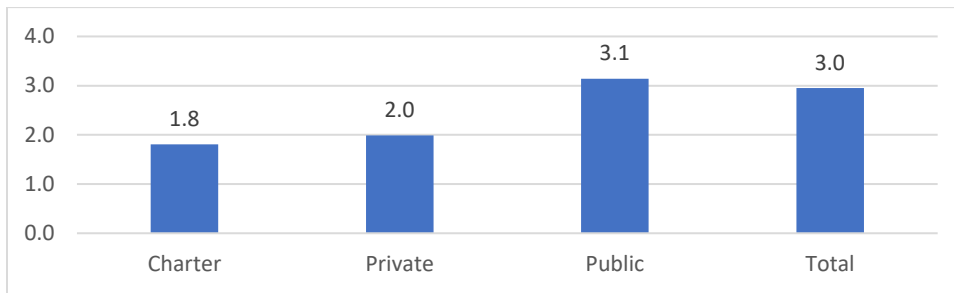


Parents' Assessment of the Experience

Two common themes in media reporting in spring 2020 were (a) how difficult parents found at-home schooling and (b) the chaotic and inconsistent response by schools. Our survey results, however, tell a different story.

First, parents reported feeling, on average, somewhat prepared to help with remote learning (see Figure 9). Differences by school type showed charter and private school parents felt more prepared than those in public schools. When disaggregated by income, lower income parents reported feeling slightly less prepared than those in higher income households (means of 3.3 compared to 2.8).

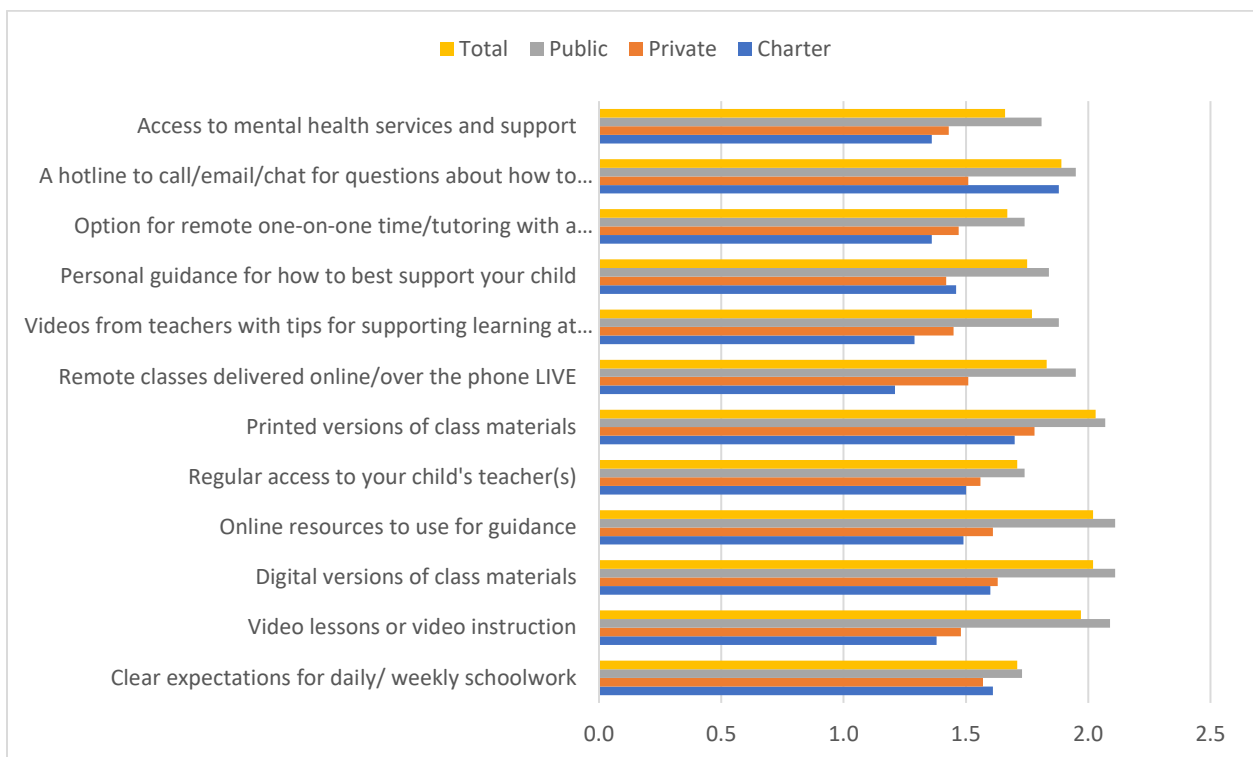
Figure 9: How Prepared Parents Felt to Help with Remote Learning



Scale: 1 = very prepared, 2 = prepared, 3 = somewhat prepared, 4 = somewhat unprepared, 5 = unprepared, 6 = very unprepared

Parental assessments of their schools' responses were, on the whole, positive (see Figure 10). Across a list of resources provided by schools, parents consistently rated them as at least helpful and sometimes approaching very helpful. None were rated as unhelpful. When disaggregated by school type, parents in charter and private schools compared to those in public schools consistently rated the resources as more helpful.

Figure 10: How Helpful Parents Found Resources Provided by Schools

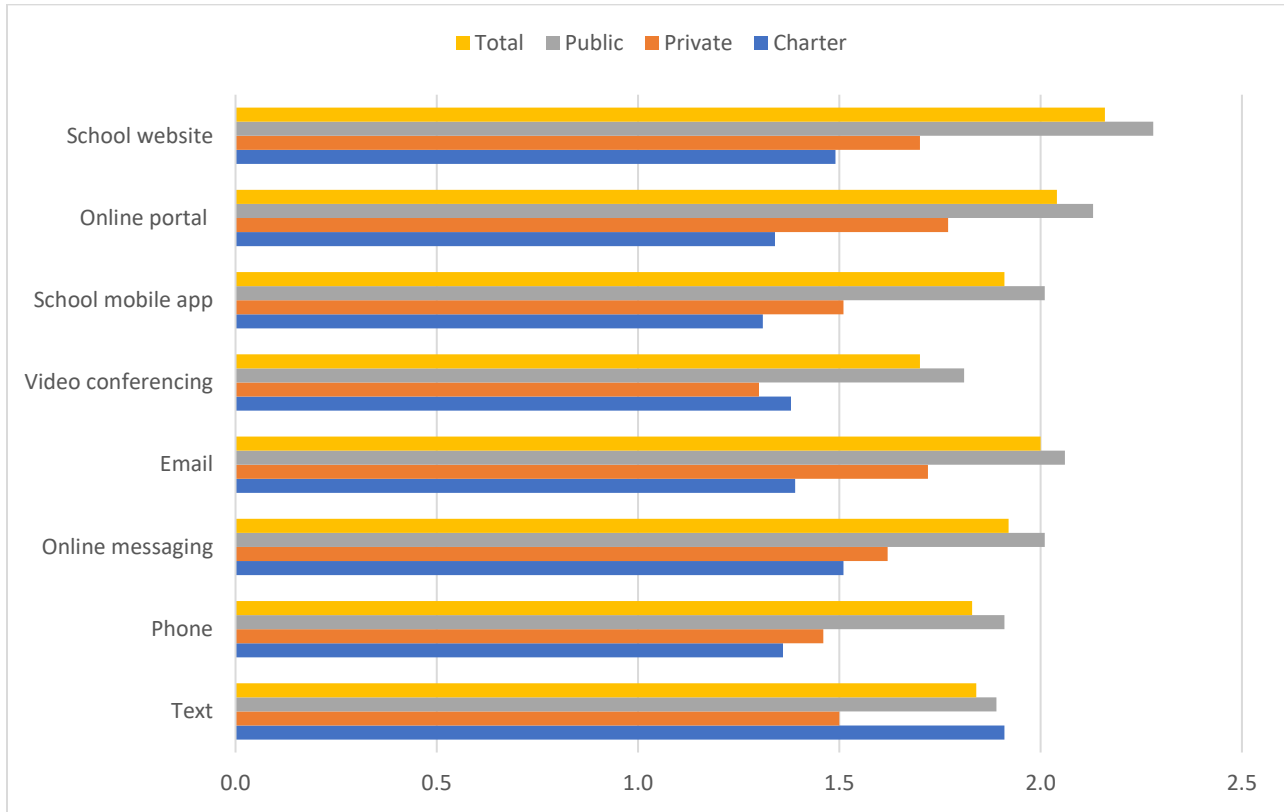


Scale: 1 = very helpful, 2 = helpful, 3 = somewhat helpful, 4 = somewhat unhelpful, 5 = barely helpful, 6 = useless

Similarly, when parents rated the effectiveness of communications between the school and them, the various communication methods were rated as effective and sometimes approaching very effective (see Figure 11). For almost all methods of communication, charter schools were

perceived as most effective, followed by private schools and then public schools. The one notable exception was in the use of texts, where charter schools were not perceived as effective as the other two school types.

Figure 11: Effectiveness of Communication between Schools and Parents



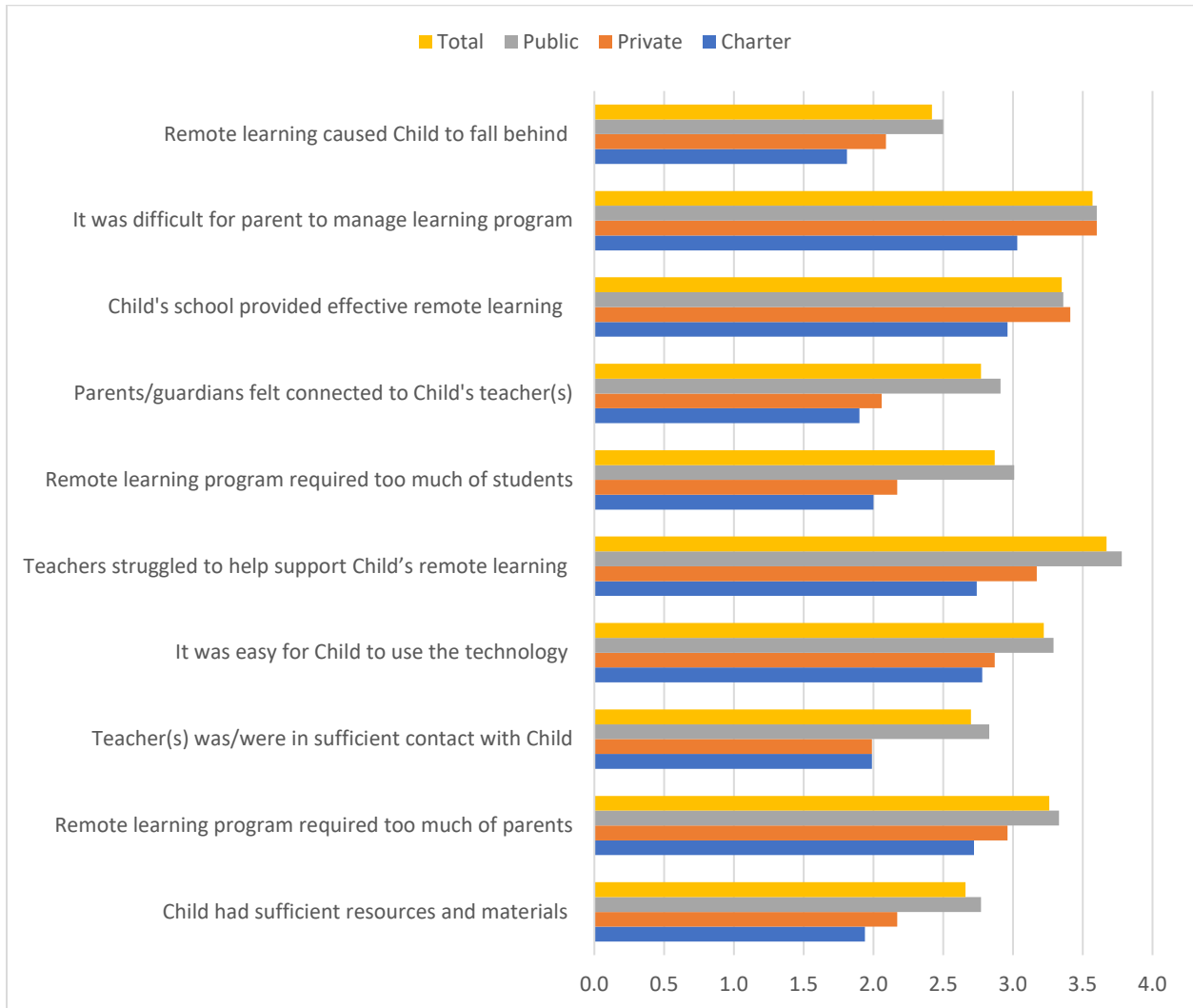
Scale: 1 = very effective, 2 = effective, 3 = somewhat effective, 4 = somewhat ineffective, 5 = ineffective, 6 = very ineffective

In response to a series of summary statements, parents likewise appeared sanguine, although there were a few exceptions (see Figure 12). Overall, parents agreed their children had sufficient resources and materials and believed they and their children were connected to their teachers. They also somewhat agreed children were able to use the technology easily and the schools provided effective remote learning. At the same time, parents agreed remote learning required too much of them and their children, and they were concerned the experience caused their children to fall behind.

When disaggregated by school type, a clear trend is evident, wherein charter parents agreed more strongly with the summary statements followed by private school parents and then those in public schools. This means, for example, charter parents expressed stronger agreement that their children possessed sufficient resources and materials, but they also more strongly believed the experience left their children behind academically. In other words, charter parent responses

were more polarized in that they more likely agreed with positive summary statements listed in Figure 12, but so, too, were they more likely to agree with the negative ones.

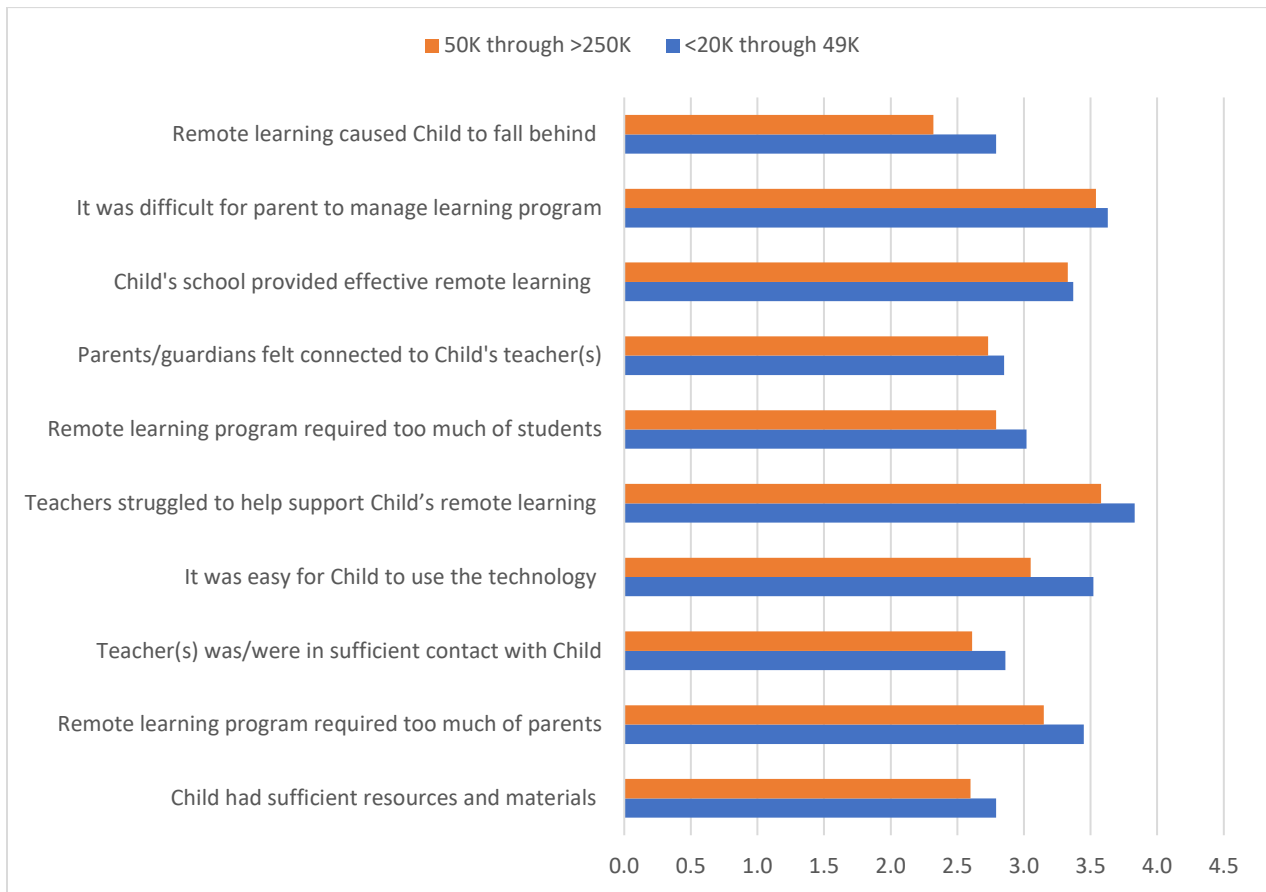
Figure 12: Summary Statements about Remote Learning



Scale: 1 = agree strongly, 2 = agree, 3 = agree somewhat, 4 = disagree somewhat, 5 = disagree, 6 = strongly disagree

A similar trend appears when the statements are disaggregated by household income (see Figure 13). Those in higher income homes consistently expressed stronger agreement than did those in lower income homes. This meant they were more likely to agree they and their children were connected to teachers, their children had sufficient resources, and the technology was easy to use, but they were also more likely to agree their children fell behind, remote learning required too much of them and their children, and teachers struggled to support their child's learning.

Figure 13: Summary Statements by Household Income



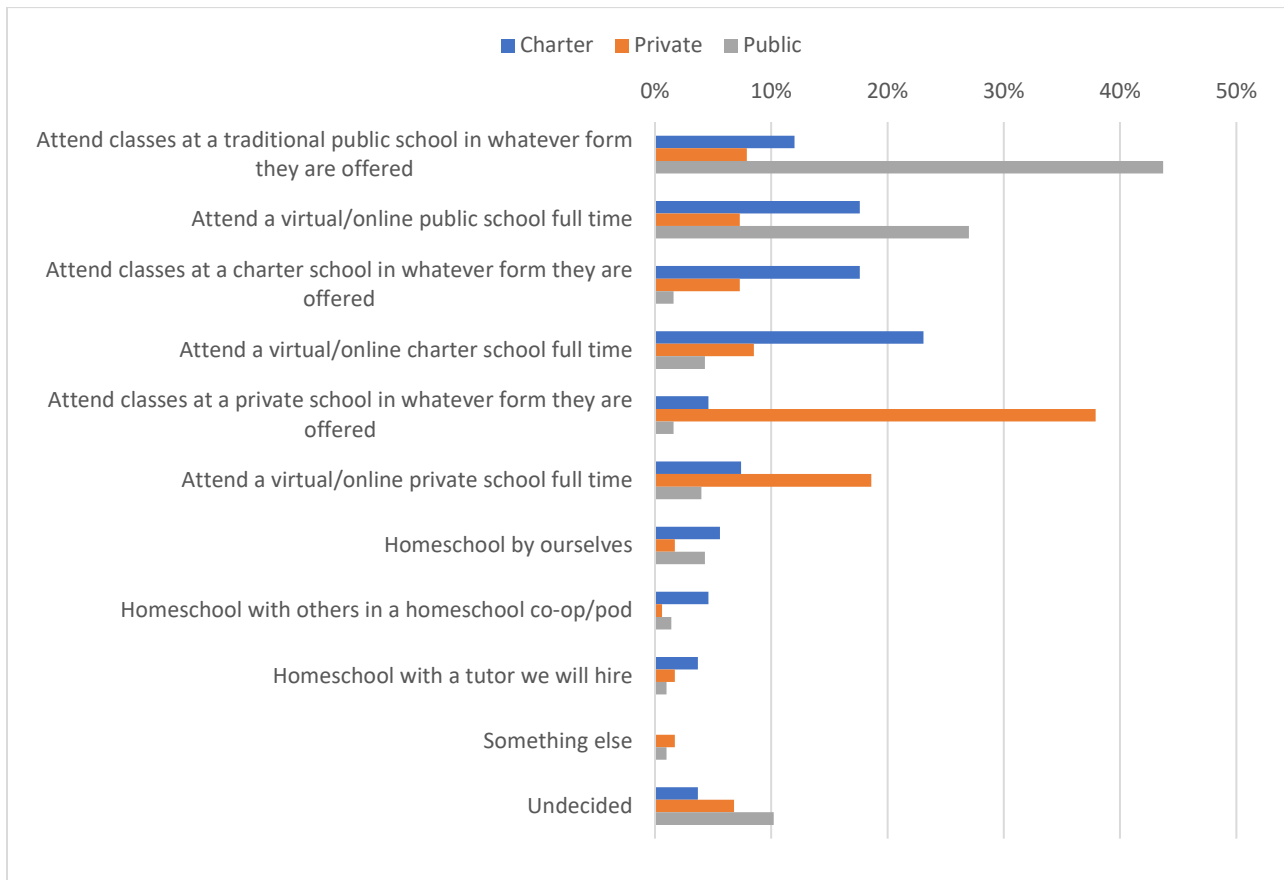
Scale: 1 = agree strongly, 2 = agree, 3 = agree somewhat, 4 = disagree somewhat, 5 = disagree, 6 = strongly disagree

In an overall assessment, we asked parents how satisfied they were with the remote learning experience. On average, parents said they were somewhat satisfied, although response varied by school type. Those in charter schools expressed greater satisfaction, followed by private school parents and then those in public schools. Differences by household income were trivial.

Yet, when asked about their plans for the 2020-2021 school year, charter parents appeared less committed to remain in a charter school (see Figure 14). Instead, public school parents seemed to express a stronger preference to remain in the same sector. Charter school parents more than those in the other two sectors planned to homeschool in some form. On average, 47% of parents planned to send their children to traditional schools however they operated, 36% were going to send their children to virtual schools, and 7% planned to homeschool in some fashion.

When disaggregated by household income, almost all of the differences were small save for private school attendance, wherein those in higher income households were more likely to plan for their children to attend private schools (14% compared to 6% in lower income homes).

Figure 14: School Plans for the 2020-2021 School Year



Finally, for those who planned to attend a virtual school or homeschool, we asked the reason for that decision. The results were predictable. Eighty-seven percent expressed concern for the health of their children or someone in their homes if the children were to become infected. Seven percent said their children would receive a better education that way, and only 5% expressed concern about managing work and childcare.

DISCUSSION AND CONCLUSION

Like practically every other institution, organization, and business in the United States, schools were caught completely unprepared for the COVID-19 closures. They had little reason to prepare. As late as March 8, one of President Trump’s top COVID advisors, Dr. Anthony Fauci, appeared on *60 Minutes* assuring viewers the effect of the virus would likely not be as severe in the United States as it was then in China (Farmer, 2020). Less than 10 days later, school closures began around the country.

Media reporting at the time portrayed a chaotic transition from in-person to remote learning, with parents struggling to attend to the needs of their children and maintain employment, but the results of our survey do not entirely align with that portrayal. Of course, by the time we

surveyed parents (the first two weeks of August), remote learning was two months or more in the past. The pain and frustration of the spring may not have been as acute after a few months of separation. Contemporary reporting also likely suffered from sensationalism that has come to characterize the news (Kilgo, Harlow, García-Perdomo, & Salaverría, 2018). It may be that far more schools made a smoother transition to remote learning than media reporting conveyed. Strassel (2020), for example, described her children’s school district as functioning quite effectively with remote learning.

So what, then, is to be learned from these data? First, these results suggest large scale change to schooling in the United States is technically possible. As Keane (2020) described, prior to the COVID-19 closures, the quantity and quality of online instruction and even technology use in classrooms had been uneven and mostly ad hoc. There had been questions about whether widespread virtual education was possible (Horn & Staker, 2011). These results suggest it is. The circumstances were not optimal, with schools rushing to create remote learning programs in a matter of days and weeks, and the quality of the programming certainly would have been greater with more preparation time. But these results show despite little time to prepare, inadequate resources, and no training, schools created programs with which parents were at least somewhat satisfied overall and elements of which they rated as helpful and effective. Indeed, given the circumstances, it is surprising schools did so well. If they could do so under these conditions, what more is possible under more optimal circumstances?

Yet, possible and probable are not the same thing. To put it plainly, our data indicate there is not going to be an “educational renaissance” some soothsayers predicted (Henderson, 2020). When asked their plans for fall 2020, the percentage of parents choosing homeschooling was small compared to other options, nothing close to the 40% to 60% predicted in some sources (Lardieri, 2020; Schultz, 2020; USA Today/Ipsos, 2020). Yes, a non-trivial percentage chose virtual schools, but the reason for doing so was primarily for health concerns, not for a better education. Popular articles throughout summer 2020 frequently announced “Interest in homeschooling has ‘exploded amid pandemic’” (AP, 2020b), provided homeschooling resources (Kenniston, 2020; Remadna, 2020), and featured stories about homeschool pods (Basu, 2020), but our results suggest this is going to be a small minority of families.

There is not going to be an “educational renaissance” some soothsayers predicted.

To the extent parents are going to school at home, our results indicate they clearly want someone else to lead it, hence the percentages of parents choosing virtual rather than homeschool. Recall, when schools cancelled classes and provided no resources, most students spent their time on things other than schooling. Moreover, the

results in Figure 14 show public school parents are remaining in a public school rather than switching in large numbers.

The reason wholesale change to homeschooling and even virtual schooling in the long term seems exceedingly unlikely is simple: Parents cannot or will not do it. As Horn and Staker (2011) observed,

Home and full-time virtual schooling requires significant parental involvement....The majority of students in America need school—or a supervised place to learn. Various societal stakeholders “hire” schools to do many things for their children, just one of which is learning. A custodial job—keeping children safe—is equally important for many.

They conclude, “home schooling and full-time virtual schooling will not substitute for mainstream schooling.” Our data suggest the same.

Of course, plans on the part of schools and parents were exceptionally fluid as the 2020-2021 school year began. Moreover, widespread coverage of possible teacher sick-outs (Cassell, Gaudiano, & Mays, 2020) and reports of positive COVID cases in schools accompanied by quarantines (deBruijn, 2020; Muller, 2020) likely exacerbated the unsettled circumstances. There is always a chance parents make last-minute flights to homeschooling in order to create a greater sense of certainty and stability for their children. Even if that happens, our data still suggest it will be a short-term move rather than a “massive educational reset” (McDonald, 2020).

Second, the results likely illustrate the influence of markets on school performance. Throughout the results, and consistent with findings from earlier research (Common Sense Media/SurveyMonkey, 2020), private schools frequently appeared to be the most responsive, engaged, and innovative, followed by charters and then public. In the school choice literature, much ink has been spent debating the outcomes of public versus private schools (Krueger & Zhu, 2004; Miller & Moore, 1991), with choice opponents attributing superior private school outcomes to student differences (Pianta & Ansari, 2018). Here, however, there are no student outcomes. Differences are manifest in the schools themselves. Private schools more often chose to communicate with students, create real-time, online programs, and set higher expectations.



One may assert private schools were able to do so because of greater resources. Yet, most private schools in the United States are modest enterprises. The average student body is 150 students. Two-thirds are religious schools (Broughman, Kincel, & Peterson, 2019). The average tuition is \$11,000 (National Center for Education Statistics, 2013), a figure almost identical to (i.e., slightly less than) average per pupil expenditures in public schools (National Center for Education Statistics, 2019). Private schools operate with less bureaucracy than public schools, but the most relevant difference to this discussion is that private schools operate in a market and public schools largely do not. Because enrollment is the lifeblood of private schools, they worked during COVID closures to retain students by operating more responsively and resourcefully than public schools, whose funding streams, although reduced, continued throughout the COVID-19 closures. When it comes to student outcomes, there is no question

some of the differences between private and public schools reflect differences in student populations, but these results suggest differences are also likely manifest in how the schools operate and the influence of markets on those operations.

Public schools are not completely immune from competition. Reporting from late May described concerns among some Alabama district superintendents about losing students in fall 2020 to already-operational virtual schools in other districts (Crain, 2020). Concern was so acute, the state department of education pursued a statewide virtual school that would enroll children from any district but—critically—allow the home districts to retain funding attached to the students (Crain, 2020; Sell, 2020). Of course, Alabama’s private schools will not be similarly relieved of market pressure, meaning they will continue to have to operate responsively and innovatively to retain students.

Finally, those who project a COVID slide in student academic performance (Kuhfeld & Tarasawa, 2020) may be right to sound an alarm. Our results found parents expressed concern their children were behind academically as a result of remote learning. Moreover, 10% of respondents said their schools closed and provided no resources, and of those parents less than a third engaged in any kind of structured learning program at home. This means schools may face a triple challenge in fall 2020—provide a productive learning environment through various means (in-person with social distancing, online, hybrid, etc.), attempt to make up ground for what was very likely lost in spring 2020, and avoid becoming a vector for the virus.

REFERENCES

- Ali, S. S. (2020). Parents are opting to home school their children because of COVID-19, but experts say it might not be for everyone. <https://www.nbcnews.com/news/us-news/parents-are-opting-home-school-their-children-due-covid-19-n1232739>
- AP. (2020a). 'I just can't do this.' Frustrated parents giving up on home school. <https://www.fox5ny.com/news/i-just-cant-do-this-frustrated-parents-giving-up-on-home-school>
- AP. (2020b). Interest in homeschooling has 'exploded' amid pandemic. <https://www.mprnews.org/story/2020/08/12/interest-in-homeschooling-has-exploded-amid-pandemic>
- Baldassare, M., Bonner, D., Dykman, A., & Lawler, R. (2020). Californians & education. <https://www.ppic.org/wp-content/uploads/ppic-statewide-survey-californians-and-education-april-2020.pdf>
- Bastian, R. (2020). How educational inequality In America could be impacted by the homeschooling pod frenzy. <https://www.forbes.com/sites/rebekahbastian/2020/07/19/how-educational-inequality-in-america-could-be-impacted-by-the-homeschooling-pod-frenzy/#9b03a872cbaf>
- Basu, T. (2020). American parents are setting up homeschool “pandemic pods”. <https://www.technologyreview.com/2020/07/30/1005810/american-parents-are-setting-up-homeschool-pandemic-pods-microschool/>
- Belsha, K. (2020). Some students will stay home in the fall. School districts have to figure out how to teach them. <https://ctmirror.org/2020/06/28/some-students-will-stay-home-in-the-fall-school-districts-have-to-figure-out-how-to-teach-them/>
- Bethencourt, A. (2020). Parents consider homeschooling next school year, worry classrooms won't be safe from virus. <https://kfoxtv.com/newsletter-daily/parents-consider-homeschooling-next-school-year-worry-classrooms-wont-be-safe-from-virus>
- Bloch, E. (2020). 'Mama is tired': After school closures, some families burn out on online classes, others thrive. <https://www.usatoday.com/story/news/education/2020/05/05/coronavirus-online-classes-school-closures-homeschool-burnout/3055101001/>
- Blume, H., Kohli, S., Xia, R., & Esquivel, P. (2020). Tough realities as students struggle with home learning. *Los Angeles Times*, https://enewspaper.latimes.com/infinity/article_share.aspx?guid=a0189d0116-0180c0189b-4563-b0128d-c6036c0181d0116e0182.
- Boggs, L. (2020, May 20). Virtual learning isn't special education; Many children will regress without the daily routines and face-to-face interactions they rely on to build social skills. *Wall Street Journal*, <https://www.wsj.com/articles/virtual-learning-isnt-special-education-11590016215>.
- Bolton, R. (2020). Teaching will never be the same again. <https://www.afr.com/work-and-careers/education/teaching-will-never-be-the-same-again-20200320-p54cc2>

- Broom, D. (2020). Homeschooling during the coronavirus pandemic could change education forever, says the OECD. <https://www.weforum.org/agenda/2020/04/coronavirus-homeschooling-technology-oecd/>
- Broughman, S. P., Kincel, B., & Peterson, J. (2019). *Characteristics of private schools in the United States: Results from the 2017–18 private school universe survey first look* (NCES 2019-071). Washington, DC: National Center for Education Statistics.
- Cassella, M., Gaudio, N., & Mays, M. (2020). Teachers unions test goodwill with strike threats, hardball negotiations. <https://www.politico.com/news/2020/08/18/teachers-unions-school-reopening-coronavirus-397997>
- Carter, M. (2020). Some parents considering making home school permanent after schools reopen. <https://www.wkbw.com/rebound/coronavirus-stress/some-parents-considering-making-home-school-permanent-after-schools-reopen>
- Cavanagh, E. (2020). An award-winning teacher with 12 years of experience explains why she isn't homeschooling her kids during the coronavirus pandemic. <https://www.insider.com/a-teacher-says-she-isnt-homeschooling-during-the-coronavirus-pandemic-2020-3>
- Cavanagh, E., & Fox, E. G. (2020). Some parents say they're not homeschooling during the coronavirus pandemic because it's too stressful. <https://www.insider.com/parents-wont-homeschool-in-coronavirus-pandemic-because-of-stress-2020-3>
- Chua, K.-P., DeJonckheere, M., Reeves, S. L., Tribble, A. C., & Prosser, L. A. (2020). Plans for school attendance and support for COVID-19 risk mitigation measures. https://ihpi.umich.edu/sites/default/files/2020-06/plans%20for%20school%20attendance%20and%20support%20for%20risk%20mitigation%20measures%20among%20parents%20and%20guardians_final.pdf
- Common Sense Media/SurveyMonkey. (2020). How teens are coping and connecting in the time of the coronavirus. https://www.common sense media.org/sites/default/files/uploads/pdfs/2020_surveymonkey-key-findings-toplines-teens-and-coronavirus.pdf
- Courtney, N. J. (2020). Parents are spending \$125,000 a year on at-home education pods to protect kids from coronavirus risks at school. <https://www.insider.com/parents-spending-125000-private-tutors-to-teach-kids-at-home-2020-7>
- Crain, T. P. (2020). Alabama prepares for more students to choose online school next year. <https://www.al.com/news/2020/05/alabama-prepares-for-more-students-to-choose-online-school-next-year.html>
- Crutchfield, A., & Londberg, M. (2020). 'I'm really struggling': In 6 home classrooms, families keep learning alive in a pandemic. <https://www.wvxu.org/post/im-really-struggling-6-home-classrooms-families-keep-learning-alive-pandemic#stream/0>
- Das, U. I. (2020, April 15). Generation Zoom makes do *Wall Street Journal*, p. A15.
- Davis, L. S. (2020). It's time to accept that the point of school has changed. <https://www.cnn.com/2020/04/28/opinions/time-to-accept-covid-19-has-changed-education-selin-davis/index.html32T>
- deBruijn, E. (2020). Student at Plano ISD tests positive. Here are all the COVID-19 cases at local schools. <https://www.wfaa.com/article/news/education/covid-19-coronavirus-cases-dallas-fort-worth-schools/287-6f175d53-b031-4219-8501-7de74e8c3f30>

- DeMarche, E. (2020). Orange County school Board of Education wants schools to reopen, no social distancing: report. <https://www.foxnews.com/us/orange-county-school-board-of-education-wants-schools-to-reopen-no-social-distancing-report>
- EdChoice. (2020). Public opinion tracker. <https://edchoice.morningconsultintelligence.com/assets/31705.pdf>
- Education Trust-West. (2020). California parent poll: COVID-19 and school closures. <https://west.edtrust.org/ca-parent-poll-covid-19-and-school-closures/>
- Farmer, B. M. (2020). March 2020: Dr. Anthony Fauci talks with Dr Jon LaPook about COVID-19. <https://www.cbsnews.com/news/preventing-coronavirus-facemask-60-minutes-2020-03-08/>
- Flaccus, G., & Gecker, J. (2020). 'I just can't do this.' Some overwhelmed parents are opting to abandon pandemic homeschooling. <https://time.com/5824855/parents-overwhelmed-homeschooling-coronavirus/>
- Gallegos, M. (2020). Parents considering homeschooling instead of sending their children back to the classroom. <https://www.kiiitv.com/article/news/education/parents-considering-homeschooling-instead-of-sending-their-children-back-to-the-classroom/503-3ef586c8-3d5f-40df-9b92-f3826147389a>
- Goree, A. (2020). 'They're not alone out there:' CCSD parents seek homeschooling option for upcoming year. <https://news3lv.com/news/local/theyre-not-alone-out-there-ccsd-parents-seek-homeschooling-option-for-upcoming-year>
- Gross, B., & Opalka, A. (2020). Too many schools leave learning to chance during the pandemic. <https://www.crpe.org/thelens/too-many-schools-leave-learning-chance-during-pandemic>
- Hamilton, R. C. (2020, May 19). Let children go to summer school *Wall Street Journal*, p. A17.
- Henderson, D. R. (2020, July 30). The virus may strike teachers unions. *Wall Street Journal*, p. A15.
- Horn, M. B., & Staker, H. (2011). The rise of K–12 blended learning. <https://aurora-institute.org/wp-content/uploads/The-Rise-of-K-12-Blended-Learning.pdf>
- Kamenetz, A. (2020a). 4 In 10 U.S. Teens say they haven't done online learning since schools closed. <https://www.npr.org/sections/coronavirus-live-updates/2020/04/08/829618124/4-in-10-u-s-teens-say-they-havent-done-online-learning-since-schools-closed>
- Kamenetz, A. (2020b). 5 radical schooling ideas for an uncertain fall and beyond. <https://www.npr.org/2020/06/17/878205853/5-radical-schooling-ideas-for-an-uncertain-fall-and-beyond>
- Keane, R. (2020, May 2). Coronavirus forces teachers to learn a different tune *Wall Street Journal*, p. A11.
- Keierleber, M. (2020). Top education leaders discuss how they've navigated the coronavirus so far — and why schools will never be the same. <https://www.the74million.org/top-education-leaders-discuss-how-theyve-navigated-the-coronavirus-so-far-and-why-schools-will-never-be-the-same/>
- Kenniston, E. F. (2020). Thinking of homeschooling? Local parents share their resources. <https://berksweekly.com/education/thinking-of-homeschooling-local-parents-share-their-resources/>

- Kilgo, D. K., Harlow, S., García-Perdomo, V., & Salaverría, R. (2018). A new sensation? An international exploration of sensationalism and social media recommendations in online news publications. *Journalism & Mass Communication Quarterly*, 19(1), 1497-1516.
- Koh, Y. (2020, May 7). Schools try to stem 'Covid slide' learning loss. *Wall Street Journal*, <https://www.wsj.com/articles/schools-try-to-stem-covid-slide-learning-loss-11588857722>.
- Krueger, A. B., & Zhu, P. (2004). Inefficiency, subsample selection bias, and nonrobustness: A response to Paul E. Peterson and William G. Howell. *American Behavioral Scientist*, 47(5), 718-728.
- Kuhfeld, M., & Tarasawa, B. (2020). *The COVID-19 slide: What summer learning loss can tell us about the potential impact of school closures on student academic achievement*. Portland, OR: NWEA.
- Lardieri, A. (2020). 1-in-5 teachers unlikely to return to schools if reopened in the fall, poll finds. <https://www.usnews.com/news/education-news/articles/2020-05-26/1-in-5-teachers-unlikely-to-return-to-schools-if-reopened-in-the-fall-poll-finds>
- Lisickis, R. (2020). Neighborhood decides to do co-op homeschooling, retired Marine takes up teaching PE and kids love it. https://www.boredpanda.com/coop-schooling-lockdown-retired-marine/?utm_source=google&utm_medium=organic&utm_campaign=organic
- Malkus, N., Christensen, C., & Schurz, J. (2020). School district responses to the COVID-19 pandemic: Round 6, ending the year of school closures. <https://www.aei.org/wp-content/uploads/2020/06/School-district-responses-to-the-COVID-19-Pandemic-Round-6.pdf>
- McDonald, K. (2020). Homeschooling during the COVID-19 pandemic. <https://www.cato.org/blog/homeschooling-during-covid-19-pandemic>
- Miller, M. D., & Moore, W. P. (1991). Private-public school differences in the United States: Findings from the second international mathematics study. *International Journal of Educational Research*, 15(5), 433-444.
- Muller, B. (2020). 37 students in quarantine after Glynn County school reports positive case of COVID-19. <https://www.news4jax.com/news/local/2020/08/22/37-students-in-quarantine-after-glynn-county-schools-reports-one-positive-case-of-covid-19/>
- National Center for Education Statistics. (2013). Table 205.50. https://nces.ed.gov/programs/digest/d13/tables/dt13_205.50.asp
- National Center for Education Statistics. (2019). Public school expenditures. <https://nces.ed.gov/fastfacts/display.asp?id=66>
- Needles, A. (2020). Homeschooling? You're not alone. Tacoma parents share plans, resources as schools close. <https://www.thenewstribune.com/news/coronavirus/article241236086.html>
- Newcomb, A. (2020). Charlize Theron calls home-schooling her two daughters 'incredibly stressful'. <https://www.today.com/parents/charlize-theron-calls-home-schooling-her-two-daughters-incredibly-stressful-t185835>
- Ovide, S. (2020). When home becomes a classroom. *New York Times*, p. A2.
- Park, D., & Winchester, H. (2020). COVID-19 closures a redefining moment for students, parents & schools. <https://assets.documentcloud.org/documents/6895624/Learning-Heroes-Survey-Results.pdf>

- Pianta, R. C., & Ansari, A. (2018). Does attendance in private schools predict student outcomes at age 15? Evidence from a longitudinal study. *Educational Researcher*, 47(7), 419-434.
- Picchi, A. (2020). Homeschool pods are gaining traction amid worries about school reopening; here's how parents are getting the finances to work. <https://www.usatoday.com/story/money/2020/07/28/parents-working-home-due-coronavirus-work-home-requirements-has-parents-pooling-resources-hire-tutor/5498620002/>
- Remadna, N. (2020). Planning to homeschool? Here are some tips. <https://www.kxan.com/news/education/texas-parents-consider-homeschooling-as-covid-19-concerns-linger/>
- Richards, E. (2020). 'Historic academic regression': Why homeschooling is so hard amid school closures. <https://www.usatoday.com/story/news/education/2020/04/13/coronavirus-online-school-homeschool-betsy-devos/5122539002/>
- Schultz, T. (2020). National poll: 40% of families more likely to homeschool after lockdowns end. <https://www.federationforchildren.org/national-poll-40-of-families-more-likely-to-homeschool-after-lockdowns-end/>
- Sell, M. (2020). Statewide virtual school provider selected, broadband access 'inequities' remain. <https://www.wbrc.com/2020/07/02/statewide-virtual-school-provider-selected-broadband-access-inequities-remain/>
- Strassel, K. A. (2020, May 16). One of America's remotest states makes remote learning work *Wall Street Journal*, p. A13.
- Strauss, V. (2020, May 4). She's a college president and a cognitive scientist. But her 9-year-old daughter isn't impressed with her home schooling. *Washington Post*, <https://www.washingtonpost.com/education/2020/2005/2004/shes-college-president-cognitive-scientist-her-2029-year-old-daughter-isnt-impressed-with-her-homeschooling/>.
- USA Today/Ipsos. (2020). Nearly half of Americans support reopening schools before there is a coronavirus vaccine. https://www.ipsos.com/sites/default/files/ct/news/documents/2020-05/topline_usa_today_gen_pop_covid_education_052620.pdf
- Watson, B. (2020). Moms adjust to homeschooling during COVID-19 outbreak. https://www.pressrepublican.com/news/coronavirus/moms-adjust-to-homeschooling-during-covid-19-outbreak/article_991fa9ad-4d86-5efe-8a0e-1f7af6bd588e.html
- Weiner, J. (2020). I refuse to run a home school. *New York Times*, p. A29.